

## Mathematics (BA or BS), Graduate School Bound Students

### FALL - Semester 1

**MATH 198:** Analytic Geometry with Calculus I  
**TRU 117:** Self & Society Sem: Game Theory  
 TRU 100: Truman Symposium  
 Dialogues coursework

### FALL - Semester 3

**MATH 200:** Foundations of Mathematics  
**MATH 264:** Analytic Geometry with Calculus III  
 CHEM 130 or PHYS 195  
 Foreign Language

### FALL - Semester 5

**MATH 451:** Algebraic Structures I  
**MATH XXX:** One course from List A or B  
 JINS 3XX: Junior Interdisciplinary Seminar  
 Dialogues or BS/BA coursework  
 Elective

### FALL - Semester 7

**MATH 461:** Advanced Calculus I  
**MATH 499:** Mathematics Capstone Seminar  
 Electives

### SPRING - Semester 2

**MATH 263:** Analytic Geometry with Calculus II  
 CS 170: Intro to Computer Science  
 Dialogues coursework

### SPRING - Semester 4

STAT 290: Statistics  
**MATH 357:** Linear Algebra  
 Dialogues coursework  
 Foreign Language

### SPRING - Semester 6

**MATH 398:** Junior Seminar in Mathematics  
**MATH 452:** Algebraic Structures II\*  
**MATH XXX:** One course from List A or B  
 Dialogues or BS/BA coursework  
 Elective

### SPRING - Semester 8

**MATH 462:** Advanced Calculus II  
**MATH 440:** Topology\*\*  
 Electives (as needed) to total at least 120 hours

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#### NOTES:

\*Math 452 is offered only in the spring of even years and Math 462 is offered only in the spring of odd years. So students may need to swap years for the Math 451-452 and Math 461-462 sequences.

\*\*Offered only every other year. May need to take in junior year.

Graduation Requirements: Total credit hrs  $\geq 120$  (40 credit hrs @ 300-level or higher)

#### List A of Elective Courses:

MATH 363: College Geometry  
 MATH 440: Topology  
 MATH 447: Combinatorial Analysis  
 MATH 452: Algebraic Structures II  
 MATH 454: Theory of Numbers  
 MATH 462: Advanced Calculus II  
 MATH 465: Differential Geometry  
 MATH 468: Intro to Set Theory  
 MATH 469: Intro to Math Logic  
 MATH 515: Complex Variables I  
 STAT 570: Math. Probability & Stat. I

#### List B of Elective Courses:

MATH 300: Introduction to Numerical Analysis

MATH 330: Mathematics of Finance  
MATH 335: Game Theory  
MATH 345: Introduction to Mathematical Biology  
MATH 347: Discrete Mathematics  
MATH 364: Vector Analysis  
MATH 365: Ordinary Differential Equations  
MATH 400: Methods of Optimization  
MATH 455: History of Mathematics I  
MATH 456: History of Mathematics II  
MATH 464: Higher Geometry  
MATH 511: Numerical Analysis  
MATH 521: Partial Differential Equations  
MATH 530: Topics in Mathematical Modeling  
MATH 564: Advanced Linear Algebra  
STAT 571: Mathematical Probability and Statistics II

The Dialogues Curriculum requires a certain number of courses/credit hours in the following Perspectives: Social, Arts and Humanities, STEM, Communications, and Statistics. The exact number of courses a student will be required to take during their undergraduate career varies individually according to the credit transferred in.

**Department Chair:** Please [contact the Center for Academic Excellence](#) with any updates to the plan above.